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09/665,594	09/19/2000	William R. Bullman	BULLMAN 7-26-6	5797

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William H Bollman
Manelli Denison & Selter PLLC
2000 M Street NW
Suite 700
Washington, DC 20036-3307

EXAMINER	
PERILLA, JASON M	

ART UNIT	PAPER NUMBER
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/665,594	BULLMAN ET AL.	
	Examiner	Art Unit	
	JASON M. PERILLA	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-14 and 16-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-14 and 16-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 3-14, and 16-33 are pending in the instant application.

Response to Arguments

2. The Applicant's arguments, filed May 5, 2008, have been fully considered in view of the amendments to the claims. However, in view of a new application of the prior art, the Applicant's arguments are not persuasive.

New prior art rejections, necessitated by the Applicant's amendments, are set forth below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 3-7, 12-14, 16-21, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechleider et al (US 6091713; hereafter "Lechleider" – previously presented) in view of Bellenger et al (US 6058110; hereafter "Bellenger" – previously presented).

Regarding claim 1, Lechleider discloses a method for deploying digital subscriber line (DSL) service via an analog modem (col. 2, lines 17-29; col. 3, lines 7-13; "Summary of the Invention") comprising, receiving a subscriber login request (fig. 1, via modem ref. 103; col. 5, lines 47-50) into a network site (fig. 1, ref. 113) via an analog modem (col. 3, lines 33-41), requesting said analog modem to provide test results

relating to a suitability of a service line used by the subscriber for supporting DSL service via the analog modem (col. 5, line 50 – col. 6, line 30), and provisioning DSL service on the service line if suitability is determined to support DSL service (col. 7. lines 40-47) wherein said DSL service is automatically qualified for service over a DSL modem. In Lechleider's disclosure, initially, the analog modem is not "provisioned" for DSL service by being connected to a service provider's complementary DSL service physically, or otherwise. The analog modem must make a subscriber login request to a network site to establish a connection as is understood in the art. Lechleider discloses that after testing a communications line with an analog voice band modem, DSL service may be provisioned by replacing the analog band modem with a DSL band modem (col. 2, lines 57-68).

Lechleider does not explicitly disclose **(1)** the use of a combination analog/DSL modem wherein **(2)** no communicative service line connection is provided to a service provider's complementary DSL service until the suitability of the service line is tested, **(3)** automatic initiating and provisioning of DSL service by establishing a communicative connection to the service provider's complementary DSL service occurs if said service line is determined to be suitable to support DSL service, and **(4)** automatic initiating and provisioning includes switching the combination analog/DSL modem to use a DSL portion to communicate with the service provider's complementary DSL service.

However, Bellenger teaches the use of a modem (fig. 1, ref. 110; Covering limitation **(1)**) that operates throughout the analog voice band (i.e. 300-3400 Hz) and also extended operation above the voice band into the DSL band (i.e. "above 3400 Hz";

col. 2, lines 56-60). Further, Bellenger teaches an analog/DSL modem that determines (fig. 9) if the telephone line is capable of operating in the DSL band, and uses the DSL band if the determination is favorable (col. 2, lines 60-67; col. 11, lines 1-15; fig. 9). Bellenger discloses, in a strictly analogous line of prior art, combination analog/DSL modems (fig. 1, refs. 110 and 130) which communicate over a service line (fig. 1, ref. 120) which is tested (fig. 9) for suitability of communication in a DSL band. At a moment of call initiation, the service line (fig. 1, ref. 120) of the modem is not "provisioned" for DSL service because the claimed "established communicative connection" is only "below 4000 effective symbols per second" (fig. 9; Covering limitation **(2)**). After testing, Bellenger discloses that the "established communicative connection" can be "automatically" increased to "above 4000 effective symbols per second" depending upon the service line's suitability (fig. 9; Covering limitation **(3)**). Finally, Bellenger discloses in column 2, lines 55-68, a data rate correlation between non-DSL and DSL communications (i.e. 300-3400 Hz analog band; above 3400 Hz "higher data rate" DSL band) which depends upon the capability testing as outlined in figure 9. That is, Bellenger makes it apparent that a suitable service line operating at an effective symbol rate of above 4000 symbols per second will operate in the DSL band while unsuitable service lines which can only operate at an effective symbol rate of less than 4000 effective symbols per second will operate in the analog voice band. As reasonably interpreted by the Examiner, Bellenger covers the claimed lack of a "communicative connection" for DSL service so long as the data rate remains below 4000 symbols per second and the band of communication remains below 3400 Hz. The

"communicative connection" (operation in extended 3400 Hz band or not) for DSL is "automatically" provisioned whenever the suitability for it exists as disclosed in figure 9 of Bellenger. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made that the method of deployment of Lechleider could be modified by the use of a combination analog/DSL modem of Bellenger in place of Lechleider's analog one because it would permit more automatic and effortless transition from analog to DSL service.

Regarding claim 3, Lechleider in view of Bellenger disclose the limitations of claim 1 as applied above. Further, Lechleider discloses that a network site is accessed via a separate connection to an Internet (fig. 1). It is inherent that by the use of an analog modem, a separate connection to an Internet is created proceeding the subscriber login request.

Regarding claim 4, Lechleider in view of Bellenger disclose the limitations of claim 1 as applied above. Further, Lechleider discloses providing at least one of an address and a telephone number to the network site via an analog modem (col. 7, lines 61-67).

Regarding claim 5, Lechleider in view of Bellenger disclose the limitations of claim 1 as applied above. Further, Lechleider discloses that determining the suitability of the service line further comprises performing a measurement of at least one parameter of the service line using the analog modem (col. 6, lines 8-29).

Regarding claim 6, Lechleider in view of Bellenger disclose the limitations of claim 5 as applied above. Further, Lechleider discloses that the performing of a

measurement further comprises measuring the amplitude of a signal transmitted over the service line (col. 6, line 13-14). It is inherent in the process of measuring RX/TX power that a measurement of amplitude is made.

Regarding claim 7, Lechleider in view of Bellenger disclose the limitations of claim 5 as applied above. Further, Lechleider discloses that the performing of a measurement further comprises measuring a return echo over the service line (col. 6, lines 24-25).

Regarding claim 12, Lechleider in view of Bellenger disclose the limitations of claim 1 as applied above. Further Lechleider discloses making a list of subscribers that are approved for service (col. 7, lines 40-41). The limitation including informing a subscriber that DSL service is not available when the service line is determined to not support DSL service is obvious in view of the utility of the DSL loop characterization as disclosed by Lechleider. Because the purpose of the method disclosed by Lechleider is to determine the availability of DSL service on a telephone loop for a subscriber, it is obvious that if the service is found to be unavailable, the subscriber would be notified.

Regarding claim 13, Lechleider in view of Bellenger disclose the limitations of claim 12 as applied above. The limitation including informing a subscriber why DSL service is unavailable is obvious in view of the telephone loop testing as performed by Lechleider. The utility of carefully characterizing the potential DSL telephone loop as described by Lechleider is provided by the knowledge of why the DSL service can or can not be provided. Therefore, it would be obvious to provide this information to a potential subscriber, because a reason for the unavailability of the service is known by

the method, and the potential subscriber may request the reasoning of the unfavorable service determination.

Regarding claim 14, Lechleider in view of Bellenger disclose the limitations of claim 1 as applied above. Further, Bellenger discloses that the DSL modem is selected (col. 2, lines 56-67).

Regarding claim 16, Lechleider in view of Bellenger disclose the limitations of the claim as applied to claim 1, above. Further, Lechleider discloses a computer program product for deploying digital subscriber line (DSL) services via an analog modem (col. 2, lines 17-29; col. 3, lines 7-13). The computer program product comprises a computer usable medium having computer readable program code thereon, including program code for logging into a network site via an analog modem (col. 3, lines 33-41) and program code for determining a suitability of a service line for DSL services via the analog modem (col. 7. lines 40-41). The analog modem must make a subscriber login request to a network site to establish a connection as is understood in the art. Lechleider discloses that the analog modem may be contained in a personal computer (col. 4, lines 35-36). It is inherent that the computer program product comprises computer usable medium in the form of some type of memory (i.e. RAM, ROM, HDD) that is readable by the computer. As understood by one in the art, the program product code may be also present in the modem itself in the form of firmware contained on computer readable medium such as the ROM of the modem. It is inherent that a modem also contains a program product. Lechleider discloses that after testing a communications line with a voice band modem, it could be replaced with a DSL band

modem (col. 2, lines 57-68) but does not explicitly disclose the use of an analog/DSL modem wherein the combination analog/DSL modem supports analog service to a subscriber and DSL from a DSL service provider to said subscriber. However, Bellenger teaches the use of a modem that operates throughout the voice band and also extended operation above the voice band for DSL (col. 2, lines 56-60). Further, Bellenger teaches an analog/DSL modem that determines if the telephone line is capable of operating in the DSL band, and program code for installing DSL services if the DSL band determination is favorable (col. 2, lines 60-67). Since control of the modem is accommodated by the program code, it is the program code that enacts and installs the DSL service by the selection of the DSL modem. The analog/DSL modem of Bellenger provides analog service while operating in the analog (voice) band and DSL service while operating in the DSL band (col. 2, lines 57-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time which the invention was made to combine the analog/DSL modem and program code to install the DSL service of Bellenger with the DSL suitability determination program product of Lechleider, for at least the reasons applied to claim 1 above, and because the DSL band modem would be immediately available for DSL band communications as taught by Bellenger and would advantageously modify program product of Lechleider by removing the step of replacing the analog (voice) band modem with one that operates in the DSL band (a DSL modem).

Regarding claim 17, Lechleider in view of Bellenger disclose the limitations of claim 16 as applied above. Further, Lechleider discloses program code for accessing

the network site via a separate connection to an Internet (fig. 1). It is inherent that by the use of an analog modem, a separate connection to an Internet is created proceeding the subscriber login request.

Regarding claim 18, Lechleider in view of Bellenger disclose the limitations of claim 16 as applied above. Further, Lechleider discloses program code for providing at least one of an address and a telephone number to the network site via an analog modem (col. 7, lines 61-67).

Regarding claim 19, Lechleider in view of Bellenger disclosed the limitations of claim 16 as applied above. Further, Lechleider discloses program code for directing the analog portion of the modem to measure at least one parameter of the service (col. 6, lines 8-29).

Regarding claim 20, Lechleider in view of Bellenger disclose the limitations of claim 19 as applied above. Further, Lechleider discloses that at least one parameter comprises an amplitude of a signal transmitted over the service line (col. 6, line 13-14). It is inherent in the process of measuring RX/TX power that a measurement of amplitude is made.

Regarding claim 21, Lechleider in view of Bellenger disclose the limitations of claim 19 as applied above. Further, Lechleider discloses that the at least one parameter comprises a return echo over the service line (col. 6, lines 24-25).

Regarding claim 26, Lechleider in view of Bellenger disclose the limitations of claim 16 as applied above. Further, Bellenger discloses program code to select the

DSL modem (col. 2, lines 56-67). It is inherent that the DSL modem is selected by program code controlling the operation of the modem.

Regarding claim 27, Lechleider in view of Bellenger disclose the limitations of claim 27 as applied to claim 1 above.

Regarding claim 28, Lechleider in view of Bellenger disclose the limitations of claim 27 as applied above. Further, Lechleider discloses that the parameter test module is adapted to measure the amplitude of a signal transmitted over the service line (col. 6, line 13-14). It is inherent in the process of measuring RX/TX power that a measurement of amplitude is made.

Regarding claim 29, Lechleider in view of Bellenger disclose the limitations of claim 27 as applied above. Further, Lechleider discloses that the parameter test module is adapted to measure a return echo over the service line (col. 6, lines 24-25).

5. Claims 8-11, 22-25, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lechleider in view of Bellenger and Vogt, III et al (US 5625667; hereafter "Vogt").

Regarding claim 8, Lechleider in view of Bellenger disclose the limitations of claim 5 as applied above. Lechleider in view of Bellenger do not disclose that performing the measurement of claim 5 further comprises measuring a tip voltage of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines

38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 9, Lechleider in view of Bellenger disclose the limitations of claim 5 as applied above. Lechleider in view of Bellenger do not disclose that performing the measurement of claim 5 further comprises measuring a ring voltage of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of

the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 10, Lechleider in view of Bellenger disclose the limitations of claim 5 as applied above. Lechleider in view of Bellenger do not disclose that performing the measurement of claim 5 further comprises measuring a capacitance of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 11, Lechleider in view of Bellenger disclose the limitations of claim 5 as applied above. Lechleider in view of Bellenger do not disclose that performing the measurement of claim 5 further comprises measuring the impedance of

the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance, and hence the impedance, of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 22, Lechleider in view of Bellenger disclose the limitations of claim 19 as applied above. Lechleider in view of Bellenger do not disclose that the at least one parameter comprises a tip voltage of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is

applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 23, Lechleider in view of Bellenger disclosed the limitations of claim 19 as applied above. Lechleider in view of Bellenger do not disclose that the at least one parameter comprises a ring voltage of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 24, Lechleider in view of Bellenger disclose the limitations of claim 19 as applied above. Lechleider in view of Bellenger do not disclose that the at least one parameter comprises a capacitance of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 25, Lechleider in view of Bellenger disclosed the limitations of claim 19 as applied above. Lechleider in view of Bellenger do not disclose that the at least one parameter comprises an impedance of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the

resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance, and hence the impedance, of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 30, Lechleider in view of Bellenger disclose the limitations of claim 27 as applied above. Lechleider in view of Bellenger do not disclose that the parameter test module is adapted to test a tip voltage of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as

taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 31, Lechleider in view of Bellenger disclose the limitations of claim 27 as applied above. Lechleider in view of Bellenger do not disclose that the parameter test module is adapted to test a ring voltage of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 32, Lechleider in view of Bellenger disclose the limitations of claim 27 as applied above. Lechleider in view of Bellenger do not disclose that the parameter test module is adapted to test a capacitance of the service line. However,

Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Regarding claim 32, Lechleider in view of Bellenger disclosed the limitations of claim 27 as applied above. Lechleider in view of Bellenger do not disclose that the parameter test module is adapted to test an impedance of the service line. However, Vogt teaches that the tip and the ring voltage can be measured to calculate the capacitance and resistance of the telephone line (abstract; col. 4, lines 3-16). Further, Vogt teaches that the telephone operating company would want to measure the parameters of a telephone line to detect potential problems (col. 1, lines 38-41). Calculating the resistance and capacitance of the telephone line by measuring the tip and ring voltages is beneficial to characterizing the quality of the telephone line

connection, and it is applicable to characterizing the quality of the telephone line for DSL communication. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention was made to take the measurements of tip and ring voltage for measuring the resistance and capacitance, and hence the impedance, of the telephone loop as taught by Vogt in the combination of Lechleider in view of Bellenger because the measurements are applicable to assessing the quality of the telephone loop for DSL communications.

Allowable Subject Matter

6. No claims are allowed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON M. PERILLA whose telephone number is (571)272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason M Perilla/
Primary Examiner, Art Unit 2611
June 16, 2008

/jmp/

/Chieh M. Fan/
Supervisory Patent Examiner, Art Unit 2611